IN THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the application.

Listing of the Claims

21. (Currently Amended) An isolated polypeptide selected from the group consisting of:

a) a polypeptide comprising an amino acid sequence of ~~SEQ ID NO:1,~~ SEQ ID NO:2, SEQ ID NO:3, ~~SEQ ID NO:4,~~ SEQ ID NO:5, ~~SEQ ID NO:6,~~ SEQ ID NO:7 or SEQ ID NO:8,

b) a polypeptide comprising an amino acid sequence at least 90% identical to an amino acid sequence of ~~SEQ ID NO:1,~~ SEQ ID NO:2, ~~SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7 or SEQ ID NO:8,

c) a biologically active fragment of a polypeptide having an amino acid sequence of ~~SEQ ID NO:1,~~ SEQ ID NO:2, ~~SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7 or SEQ ID NO:8, and

d) an immunogenic fragment of a polypeptide having an amino acid sequence of ~~SEQ ID NO:1,~~ SEQ ID NO:2, ~~SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7 or SEQ ID NO:8.

22. (Previously presented) An isolated polynucleotide encoding a polypeptide of claim 21.

23. (Previously presented) A recombinant polynucleotide comprising a promoter sequence operably linked to the polynucleotide of claim 22.

24. (Previously presented) A cell transformed with the recombinant polynucleotide of claim 23.

25. (Previously presented) A transgenic organism comprising the recombinant polynucleotide of claim 23.

26. (Previously presented) A method of producing a polypeptide of claim 21, the method comprising:

a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide of claim 21, and

b) recovering the polypeptide so expressed.

27. (Previously presented) An isolated antibody which specifically binds to the polypeptide of claim 21.

28. (Previously presented) An isolated polynucleotide selected from the group consisting of:

a) a polynucleotide comprising a polynucleotide sequence of ~~SEQ ID NO:9,~~ SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, ~~SEQ ID NO:14,~~ SEQ ID NO:15 or SEQ ID NO:16,

b) a polynucleotide comprising a polynucleotide sequence at least 90% identical to a polynucleotide sequence of ~~SEQ ID NO:9,~~ SEQ ID NO:10, ~~SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14,~~ SEQ ID NO:15 or SEQ ID NO:16,

c) a polynucleotide complementary to a polynucleotide of a),

d) a polynucleotide complementary to a polynucleotide of b) and

e) an RNA equivalent of a)-d).

29. (Previously presented) A method of detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 28, the method comprising:

a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide, and

b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

30. (Previously presented) A method of claim 29, wherein the probe comprises at least 60 contiguous nucleotides.

31. (Previously presented) A method of detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 28, the method comprising:

a) amplifying said target polynucleotide using polymerase chain reaction amplification, and

b) detecting the presence or absence of said amplified target polynucleotide and optionally, if present, the amount thereof.

32. (Previously presented) A composition comprising the polypeptide of claim 21 and a pharmaceutically acceptable excipient.

33. (Previously presented) A method for treating a disease or condition associated with decreased expression of functional PTAM, comprising administering to a patient in need of such treatment the composition of claim 32.

34. (New) An isolated polypeptide of claim 21 comprising an amino acid sequence of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7 and SEQ ID NO:8.

35. (New) An isolated polynucleotide encoding a polypeptide of claim 34.

36. (New) An isolated polynucleotide of claim 35 comprising a polynucleotide sequence of SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15 and SEQ ID NO:16.

37. (New). A method of screening for a compound that specifically binds to the polypeptide of claim 21, the method comprising:

a) combining the polypeptide of claim 21 with at least one test compound under suitable conditions, and

b) detecting binding of the polypeptide of claim 21 to the test compound, thereby identifying a compound that specifically binds to the polypeptide of claim 21.

38. (New). A method of screening for a compound that modulates the activity of the polypeptide of claim 21, said method comprising:

a) combining the polypeptide of claim 21 with at least one test compound under conditions permissive for the activity of the polypeptide of claim 21,

b) assessing the activity of the polypeptide of claim 21 in the presence of the test compound, and

c) comparing the activity of the polypeptide of claim 21 in the presence of the test compound with the activity of the polypeptide of claim 21 in the absence of the test compound, wherein a change in the activity of the polypeptide of claim 21 in the presence of the test compound is indicative of a compound that modulates the activity of the polypeptide of claim 21.

39. (New) A method of screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a polynucleotide sequence of claim 28, the method comprising:

a) contacting a sample comprising the target polynucleotide with, under conditions suitable for the expression of the target polynucleotide,

b) detecting altered expression of the target polynucleotide, and

c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.